

KX 18

Alta Mesa Resources, Inc.

Technical Update to Banks

March 29, 2019





Executive Summary

Key Learnings and Resulting Initiatives

New Alta Mesa management team has completed a thorough review of the Company's well results and costs

	Learnings	2019 Initiatives	Revised Expectations
Productivity	<ul style="list-style-type: none"> ❖ Well spacing and development pattern are critical drivers of well productivity and economics ❖ Most precedent pattern wells were developed at too tight of a density, leading to child well results that significantly underperformed parent wells ❖ Recovery per section appears relatively fixed above 4-5 wells per section 	<ul style="list-style-type: none"> ❖ Revised development spacing pattern to optimally drain oil per section with as few wells as possible, improving per well productivity ❖ Completing pad DUCs at revised spacing to empirically test spacing assumptions ❖ 2-rig program began in March with revised spacing to further test spacing assumptions 	Improving child wells EUR from 120 MBO (2018 average) to 175-200 MBO
Capital Costs	<ul style="list-style-type: none"> ❖ Parent wells completed using generation 2.5+ completion methodology have not shown material improvement to results over less expensive generation 2 style wells ❖ ESP installations have limited incremental recovery and economic returns ❖ Service costs had not been rebid to reflect current lower-activity environment in Oklahoma 	<ul style="list-style-type: none"> ❖ Reverting to generation 2 completion methodology to significantly reduce completion cost ❖ Utilizing gas lift instead of ESPs on all new wells to reduce artificial lift related capital costs ❖ Have rebid all drilling and completion services to materially reduce costs ❖ Continuing to focus on best-in-basin drilling times to improve cycle times and reduce drilling capital 	Reducing D&C costs from \$4.5mm per well to \$3.2mm per well
Operating Costs	<ul style="list-style-type: none"> ❖ More expensive artificial lift methodologies (ESP) not showing economic production increases over other artificial lift methods ❖ Other components of LOE had not been reevaluated in some time ❖ G&A spend outsized relative to business needs 	<ul style="list-style-type: none"> ❖ Converting ESPs back to gas lift to reduce LOE ❖ Re-evaluating use of chemicals, compression and other expenses ❖ G&A: Initial reduction-in-force completed; ongoing review of overhead to match G&A with scale of business in 2019 	Targeting \$7.50 - \$8.50 / BOE of LOE in 2019 Moving G&A from \$5.5mm / month to ~\$4mm / month
Development Plan	<ul style="list-style-type: none"> ❖ Previously focused on rapid, widespread pattern development across the broader position 	<ul style="list-style-type: none"> ❖ 2019 program focused on development of highest return sections (e.g. offset existing infrastructure) while validating revised density and completion design 	Minimal unlevered cash flow outspend while establishing case for long-term asset development and growth



Technical Review

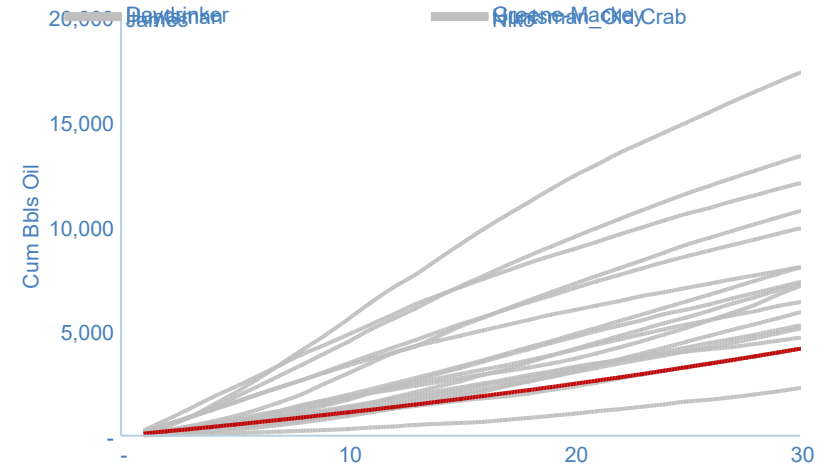
Results of 2018 Program

Summary of 2018 Drilling Program

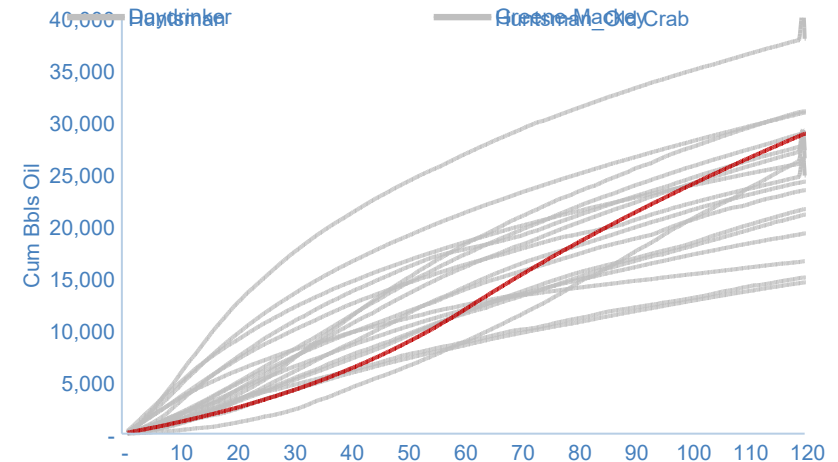
- ❖ Drilled 175 wells and completed 174 wells in 2018
- ❖ At year-end 2018 we had 17 patterns with 6-10 wells per section density with meaningful production results
- ❖ While early pattern well results appear strong vs. the type curve, they have consistently degraded over time
- ❖ Oil EUR for the average 2018 pattern well is ~120 MBO in the YE 2018 reserve report
- ❖ 2018 results driving management focus in 2019 on improved infill economics through:
 - Upspacing and lateral placement
 - Lowering D&C costs
 - Lowering LOE and overhead

2018 Pattern Results Degraded Over Time

16 of 17 Patterns Above 250 MBO TC at 30 days



4 of 17 Patterns Above 250 MBO TC at 120 days



Slide 3 Notes

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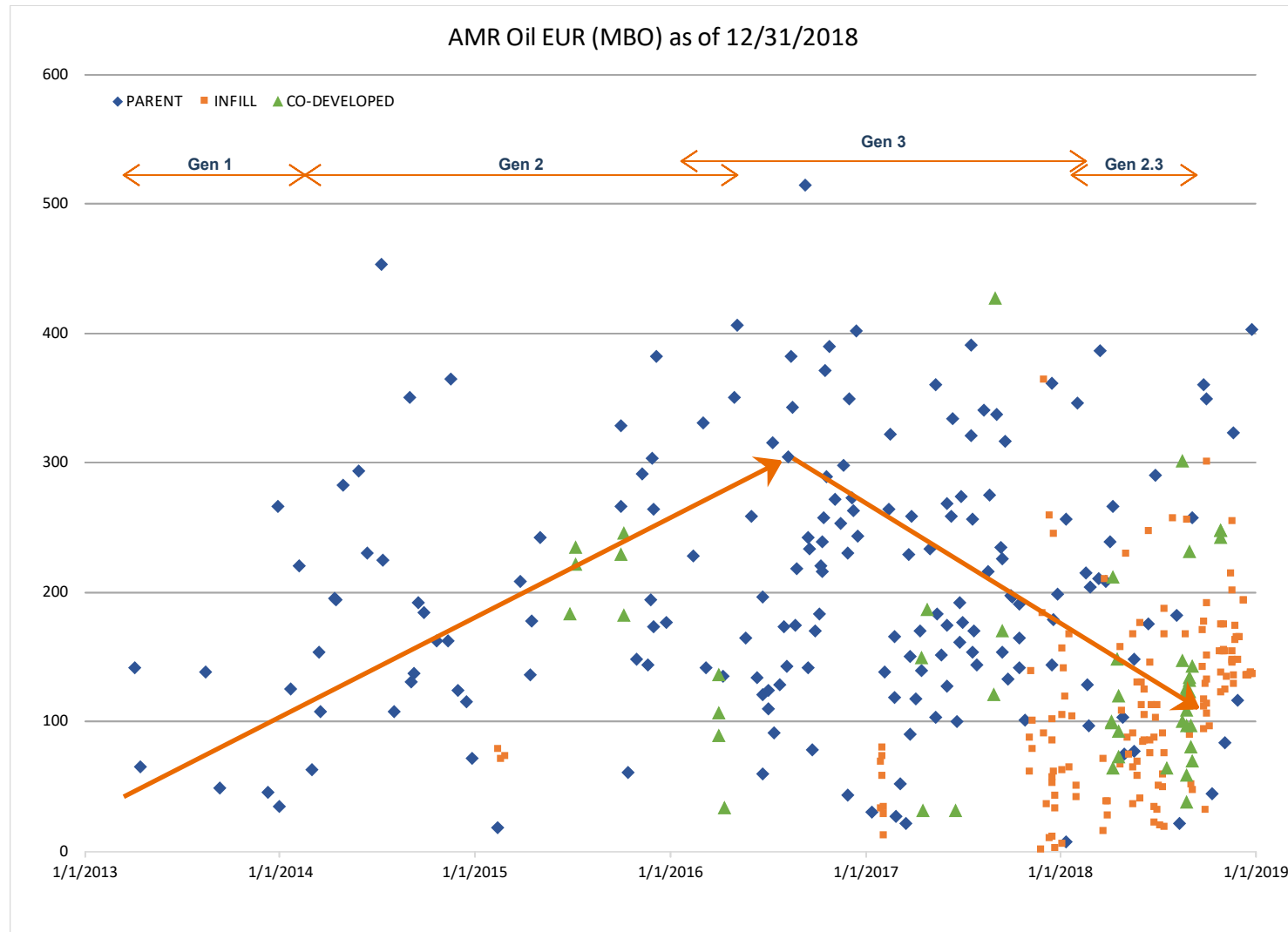
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Technical Review

Examining What Happened

Results trended up as parent wells drilled and completions optimized... well EURs began to deteriorate with infills



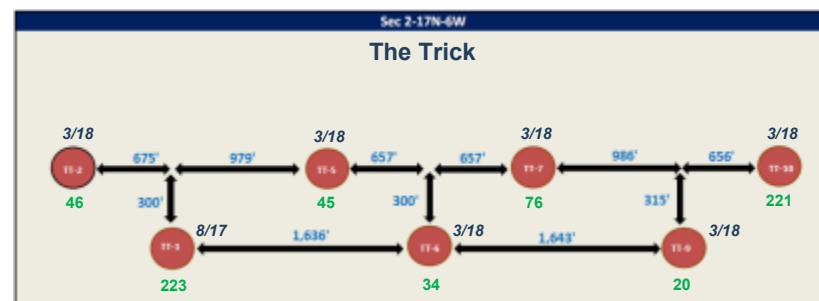
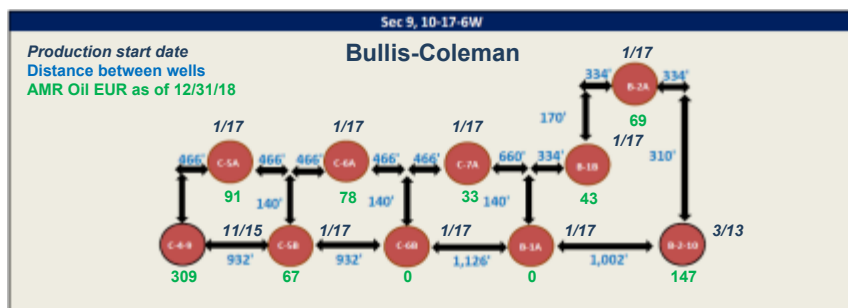


Technical Review

Precedent Spacing vs. Go-Forward Recommendation

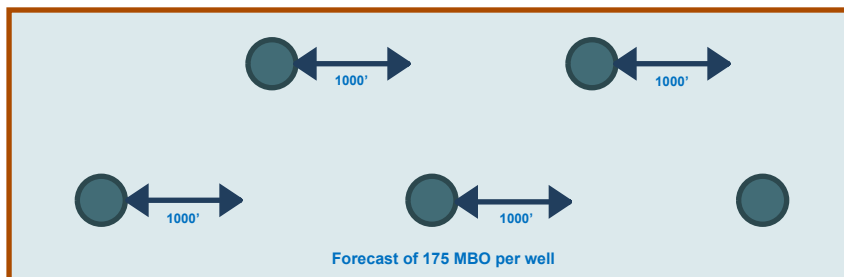
7+ wells per section does not optimally drain the reservoir; 4 – 5 wells per section is likely more appropriate

Historical

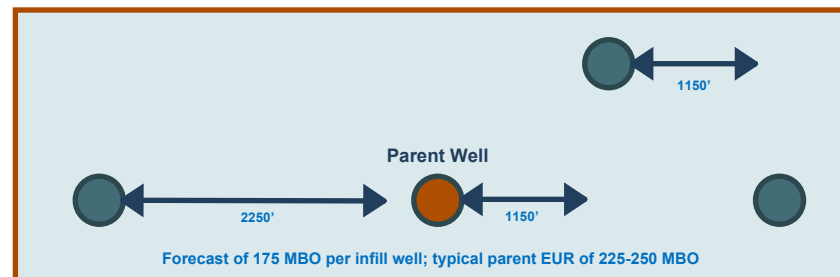


Recommended (Illustrative)

Virgin Section – 100% Co-developed



Parent + Infill





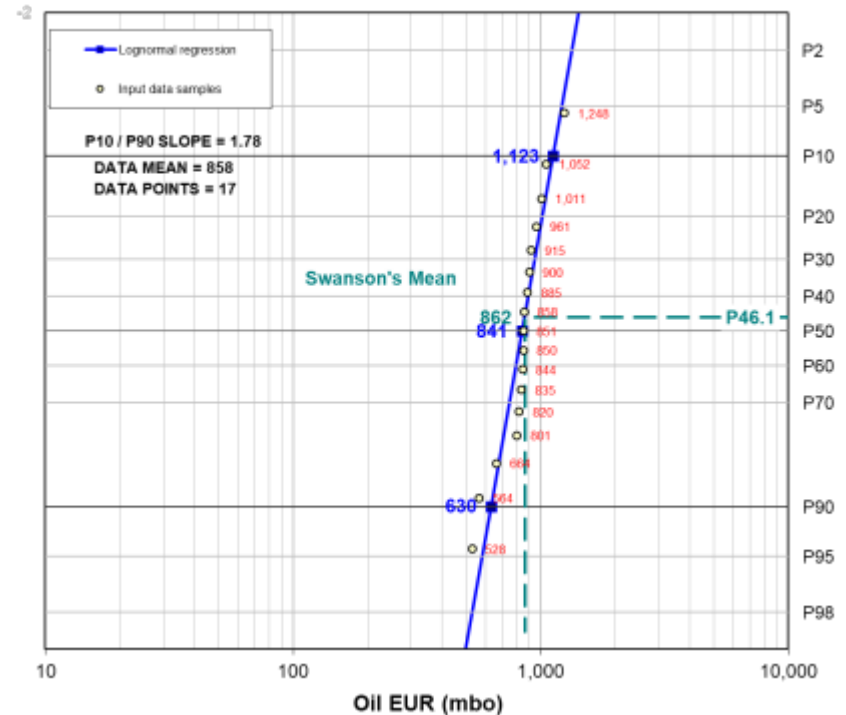
Technical Review

2019 Perspectives of Recoverable Oil Per Section

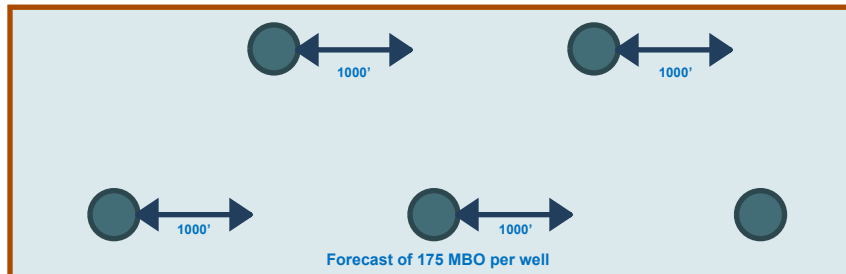
Estimated Recoverable Oil Per Section

- ❖ Average EUR per section ~850 MBO for fully developed sections with 6-10 wells per section
- ❖ Upspacing is estimated to deliver ~775 - 875 MBO per section with forecast of 175 MBO per well on both siblings and infills
 - 5 wells per section for undeveloped sections (875 MBO per section)
 - 4 wells per section (3 infills) when an initial section well exists (fewer total wells per section due to higher initial recoveries from parent well)

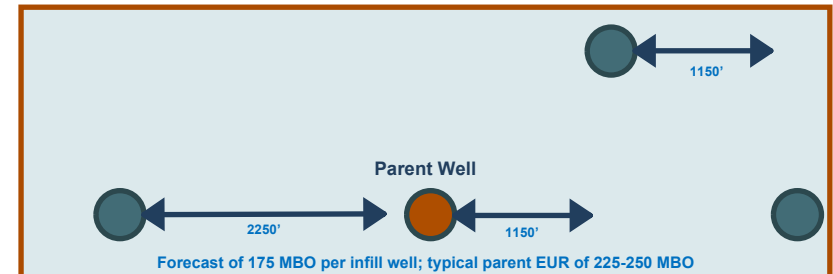
Estimated Recoverable Oil Per Section



Virgin Section
100% Co-developed



Parent + Infill



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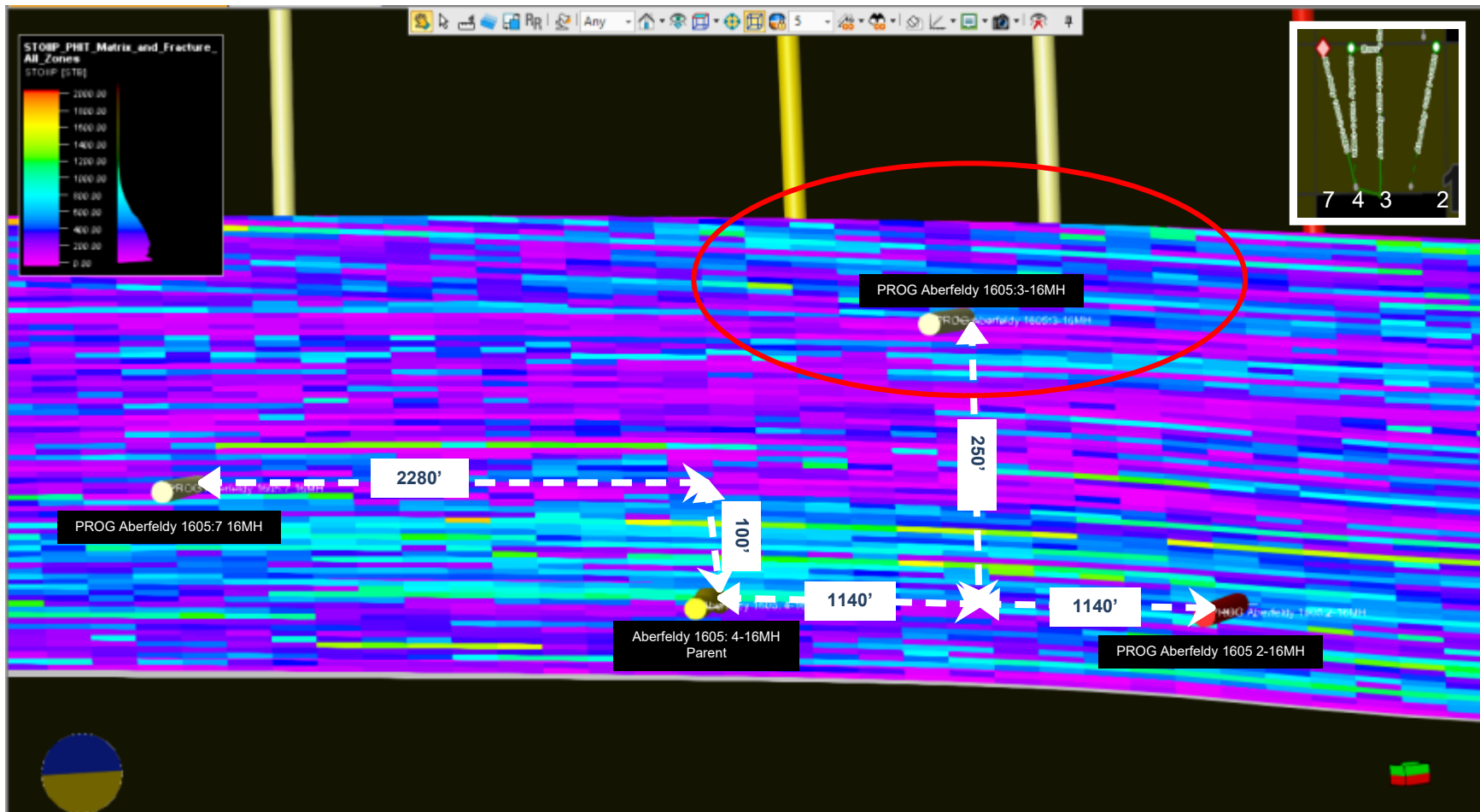
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Technical Review – New Pattern Example

Aberfeldy 1605



Target Meramec STOIP and Space Osage Infills

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Capital Cost Review

Targeted Cost Savings for 2019

	Cost Reduction to 2019 AFE \$ in 000s	Comments
2018 Costs	~\$4,500	<ul style="list-style-type: none">Includes ESP costs that account for incremental spend beyond \$3.9mm AFE and pipeline connectsBased on 2018 well design with 36 stages etc. and \$3.9mm AFEHistoric cost structure, not re-bid to reflect current market rates
Drilling Market Price Reductions	~(\$65)	<ul style="list-style-type: none">The decline in rig activity in Oklahoma has improved pricingContract labor, consulting rates, and trucking costs are down ~12% from 1Q'18. Drill time performance continues to improve
Completions Design Changes	~(\$350)	<ul style="list-style-type: none">Proppant: standardizing on 100 meshRevised the Generation 2 design with 24 stagesCut out gel and acid, enabled by switching to 100 mesh
Completions Market Price Reductions	~(\$400)	<ul style="list-style-type: none">Re-bid pressure pumping and as a result have seen price reductions, driven by the current slow down in the pressure pumping marketSwitching to locally sourced proppant provides savings in both tonnage and trucking fees
Artificial Lift Program Changes	~(\$450)	<ul style="list-style-type: none">Return to gas lift as primary production methodEliminates the increased infrastructure and facility costs necessary to handle high-load electric motors
Implications for Drill & Complete AFE	~\$3,200	

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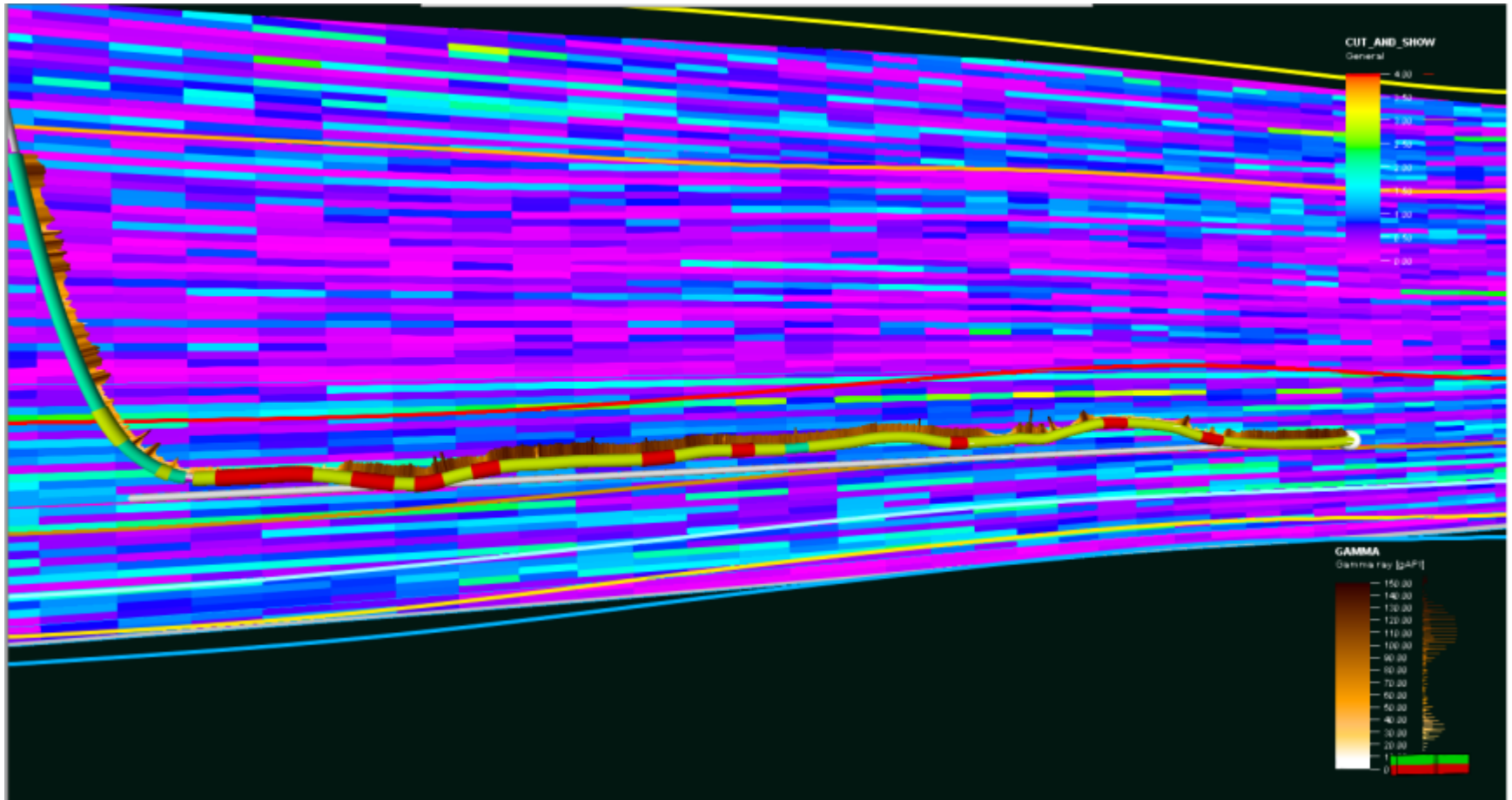
Cost-Advantaged Asset Base

- We've been blessed with tremendous rock quality across our acreage position.
- The key to the competitiveness of our acreage is that it provides us with an inherent cost advantage over our in-basin peers in a few respects:
 - First, we have a much shallower target on the eastern side of the play. This not only reduces drilling time, but allows us to use a more efficient casing design, use power power rigs, and generally use a less expensive well design
 - Similarly, because of the geology we are working with and the correspondingly low cost, we don't need to drill two mile laterals to achieve good returns. In fact, we think that one mile laterals are cheaper per foot, less risky, and generally the better option in our neck of the woods
 - Finally, our acreage is highly naturally fractured. This eliminates the need for us to use the highest end sands and other product



Capital Cost Review

Example



Looking for 1 bit laterals in STOIP

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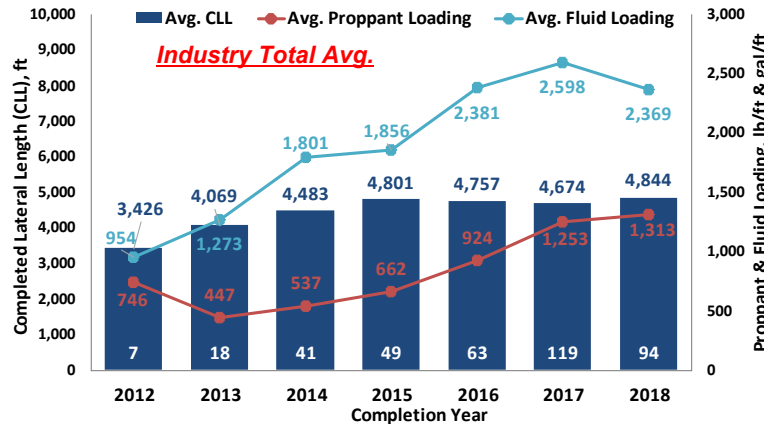


Capital Cost Review

Examining Effectiveness of More Expensive Completions

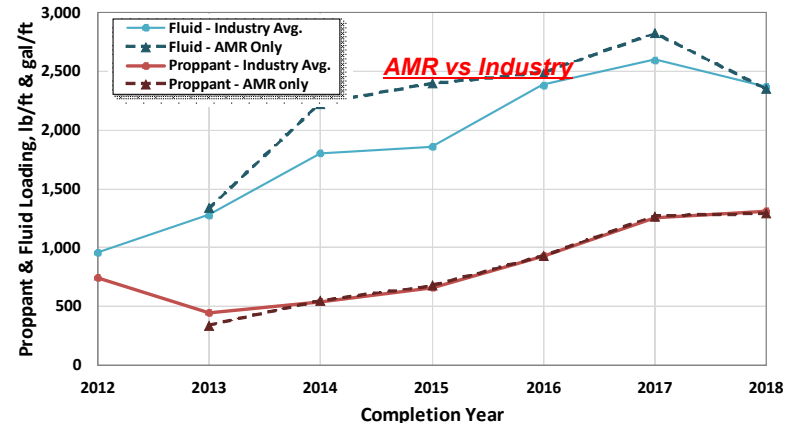
AMR's completion design appears to be in line with industry and possibly went too far

Osage Completion History

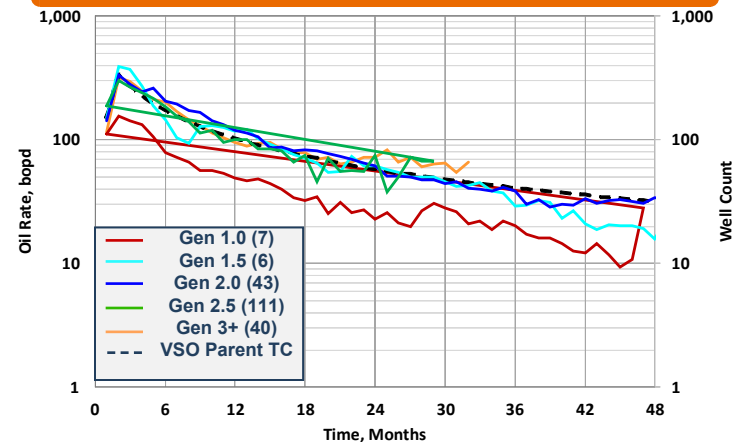


	Gen 1	Gen 1.5	Gen 2.0	Gen 2.5	Gen 3+
Well Count	7	6	43	111	40
Well Spacing (ft)	Parent	Parent	Parent	Parent	Parent
Frac Design	Pack/Sle	Pack/Sle	Plug/perf	Plug/perf	-
Stages	12	18	23	31	-
Stage Spacing (ft)	340	250	193	150	-
Fluid Load (gal/ft)	1,220	1,701	2,318	2,681	2,297
Proppant Load (lbs/ft)	317	456	677	1,213	2,449
Avg. EUR	98	171	214	218	-

- AMR has tested 4 different completion methods for Parent wells
 - Gen 1.0 wells materially underperformed recent completions no increase in well performance is observed from Generation 1.5 to 2.5
- AMR has not tested proppant loading greater than 1,500 lbs/ft but previous generations show no correlation of higher production rates vs. higher proppant
- Since AMR has not tested high proppant loads, 40 offset parent wells that had were completed in the Osage/MRMC zone w/ greater than 2,000 lbs/ft were used... these wells perform very similar to the lower cost AMR wells



Oil Type Curve





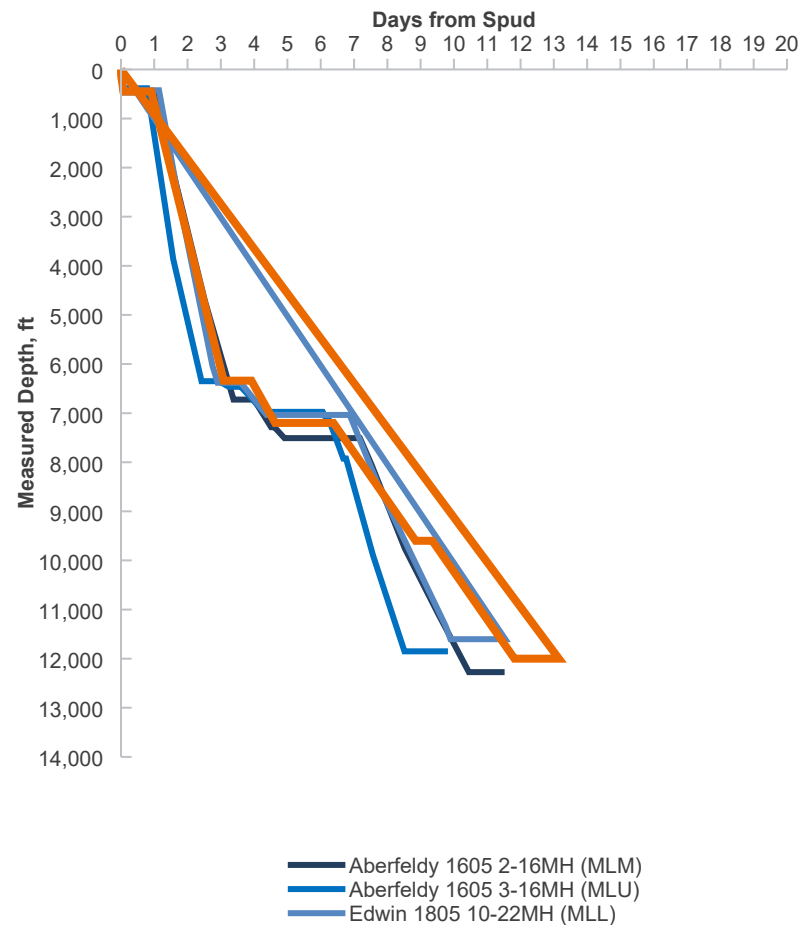
Capital Results

2019 Results vs. Plan

Drilling & Completion Capital Spending | \$ in Millions

	AFE	Avg to Date ¹	Datapoints
Drilling	\$1.5	\$1.3	3
Completion	\$1.4	\$1.3	3
Facilities	\$0.3	\$0.3	3
Total D&C	\$3.2	\$2.9	

Planned vs. Actual | Days vs. Depth



¹ Includes costs incurred to date and estimated go forward costs.

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Operating Cost Review

Cost Saving Focus in 2019

Cost Reductions

Drivers

Lease Operating Expense (LOE)¹

~ Target \$7.50 - \$8.50 /
BOE in 2019

- Re-evaluate use of chemicals, compression and other expenses
- Focus on reducing fixed costs / well / month
- Converting ESPs back to gas lift to further aid LOE

Upstream General & Administrative (G&A)²

~\$5.5mm / month
↓
~\$4mm / month

- Initial reduction-in-force completed
- Ongoing review of overhead to match G&A with scale of business in 2019

¹ LOE includes future water costs.

² Overhead guidance does not reflect any potential severance or other costs associated with our recent reduction in force.

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Revised Expectations

2019 Plans and Economic Assumptions

Development Strategy and Testing for 2019

- ❖ Rig and Completions Activity:
 - Drilled 3 wells and completed 8 wells in January
 - Targeting completion of 16 additional DUCs by end of Q2
 - Preparing to run 2 rigs beginning in March and expect to add a third rig in late Q2
 - Will evaluate adding additional rigs over the course of 2019 based on well costs, well results and commodity prices
- ❖ Key Focus Areas:
 - Test upspacing and lateral placement
 - Provide further validation for 175 MBO type curve
 - Materially lower well costs by decreasing completions intensity and capturing softening pricing in the market

Illustrative Infill / Sibling Well Economics

Upstream Only	Oil EUR	175 MBO		200 MBO	
	Oil / Gas D&C	\$3.2MM	\$3.5MM	\$3.2MM	\$3.5MM
	\$50 / \$2.75	12%	8%	20%	15%
	\$60 / \$3.25	30%	24%	41%	33%
	\$70 / \$3.25	48%	39%	63%	51%

Corporate	Oil EUR	175 MBO		200 MBO	
	Oil / Gas D&C	\$3.2MM	\$3.5MM	\$3.2MM	\$3.5MM
	\$50 / \$2.75	31%	25%	41%	33%
	\$60 / \$3.25	51%	41%	65%	53%
	\$70 / \$3.25	72%	59%	90%	74%

Near Term DUC Details

- ❖ Near term DUCs spaced at 4 WPS will enable low risk testing across distinct patterns

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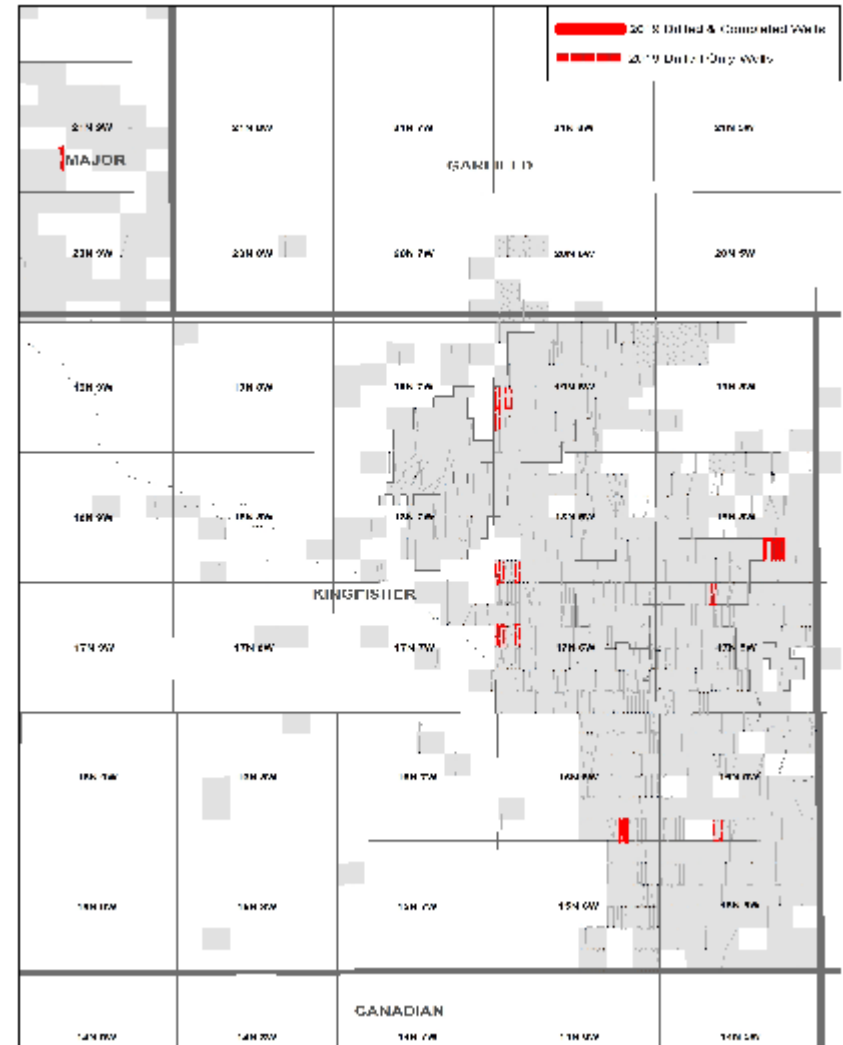
Go-Forward Plan

2019 Base Capital Plan

Base Capital Spending since 1/1/2019

- Completed drilling activities on 9 wells: \$9.1MM
- Completed frac activities on 8 wells in 2 patterns: \$13.5MM
- Brought 9 wells on production: \$1.5MM
- **Total CAPEX YTD: \$24.0MM**
- Go-forward capital spend:
 - Non-op: \$10.0MM
 - Rig liability: \$3.8MM
 - Convert ESP to gas lift: \$4.8MM
 - Land: \$4.8MM
 - Seismic: \$4.0MM (Major County – previously committed and contractually obligated)

Base Capital Spending Activity Overview



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Go-Forward Plan

2019 DUC Program

DUC Capital Spending Overview

Current DUCs		
#	Well Name	WPS
1	EHU 252H	4
2	EHU 254H	4
3	EHU 256H	4
4	EHU 258H	4
5	EHU 255RH	3
6	EHU 257H	3
7	EHU 259H	3
8	Evelyn 1706 11-18MH	4
9	Evelyn 1706 3-18MH	4
10	Evelyn 1706 7-18RMH	4
11	Helen 1605 2-33MH	3
12	Helen 1605 6-33MH	3
13	Kilgore 1705 1-4MH	2
14	Towne 1806 10-31MH	4
15	Towne 1806 2-31MH	4
16	Towne 1806 5-31MH	4
Total Budgeted Completion Cost:		\$27.5

DUC Capital Spending Activity Overview



Oil/Gas Prices	Corporate IRR % ¹				Upstream IRR % ¹			
	DUC Capex				DUC Capex			
	\$1.4MM	\$1.6MM	\$1.8MM	\$2.0MM	\$1.4MM	\$1.6MM	\$1.8MM	\$2.0MM
\$50/\$2.75	100%	100%	100%	92%	100%	86%	65%	50%
\$55/\$3.00	100%	100%	100%	100%	100%	100%	90%	70%
\$60/\$3.25	100%	100%	100%	100%	100%	100%	100%	92%

¹Returns run only with incremental capital costs and excludes legacy drilling costs already incurred; Assumes 175 MBO infill curve.

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Go-Forward Plan

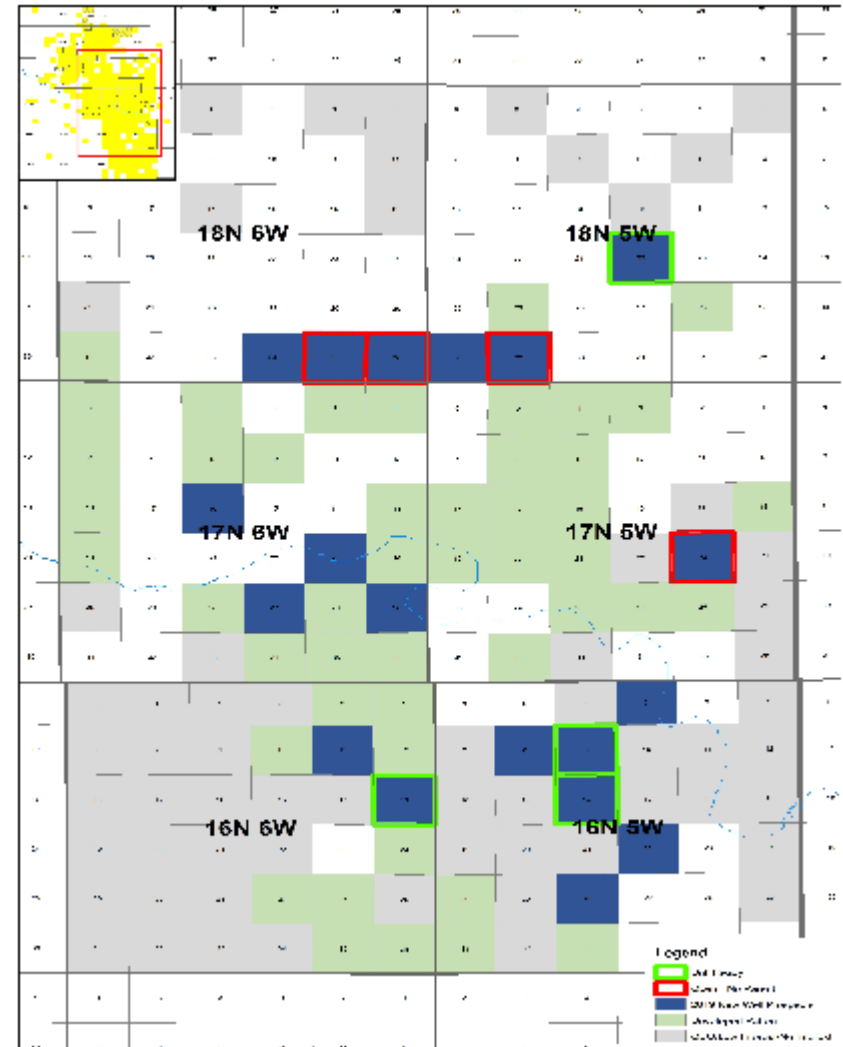
2019 Development Drilling Program

Development Capital Spending Overview

- Identified 19 sections (including 4 with no parent wells), high-graded from both an operations and geological perspective, near existing infrastructure for permitting and development in 2019 and into 2020
- Applying for permits on more sections than we plan to develop in 2019 to account for potential impact of protests and delays
- 5 wells total will be targeted in virgin sections with 3 infills being planned in sections with parents (4 wells total)
- 2 rigs beginning March 1 and 3rd rig added June 1
- 2 frac crews to complete existing DUCs, going down to 1 frac crew for remaining development program

Oil/Gas Prices	Corporate IRR %			Upstream IRR %		
	D&C Capex			D&C Capex		
	\$3.0MM	\$3.2MM	\$3.4MM	\$3.0MM	\$3.2MM	\$3.4MM
\$50/\$2.75	36%	31%	27%	16%	12%	9%
\$55/\$3.00	47%	40%	35%	26%	21%	17%
\$60/\$3.25	59%	51%	44%	35%	30%	26%

Development Capital Spending Activity Overview



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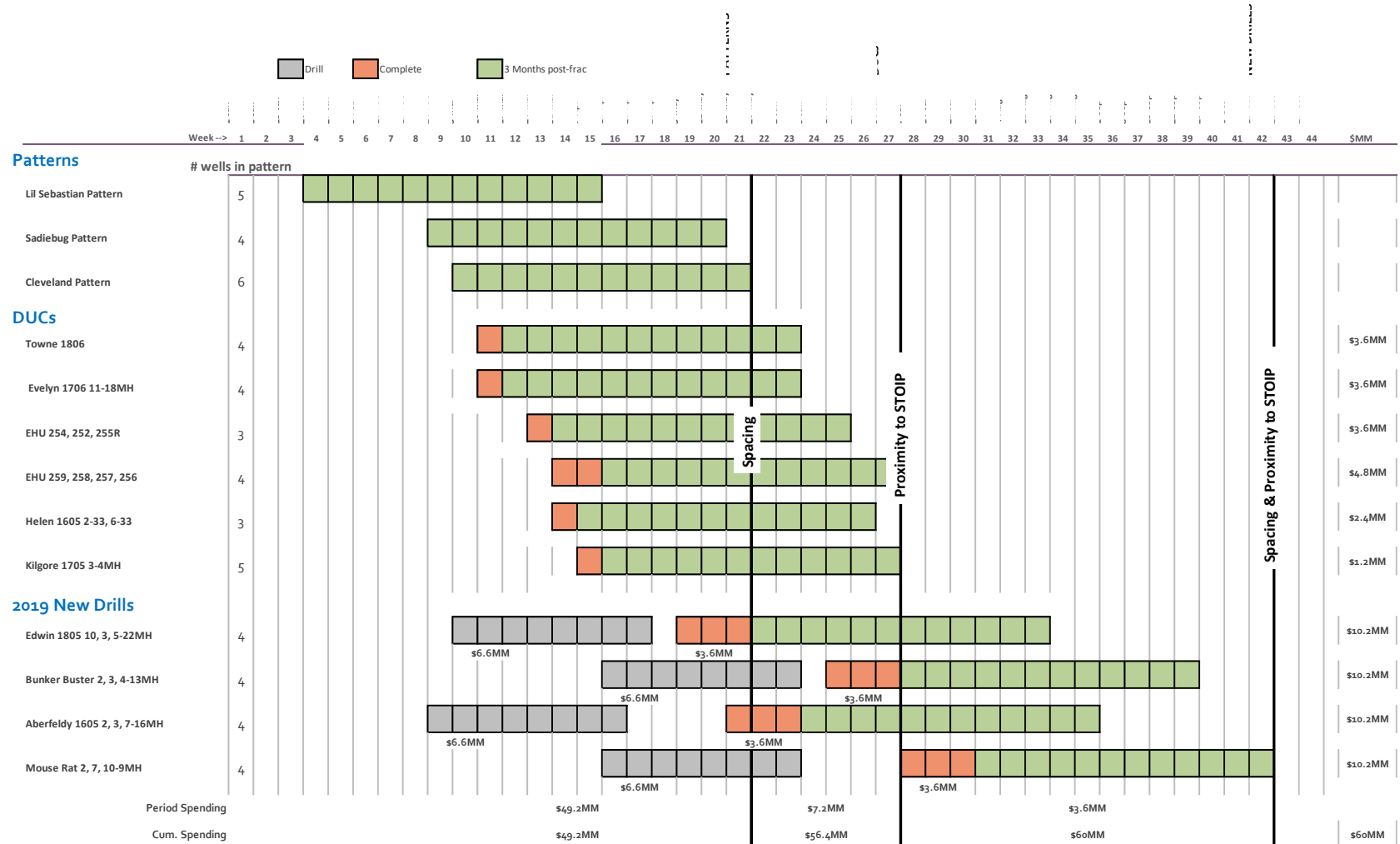
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Current D&C Capital Program

Timeline for Learning



Incremental learnings available throughout test

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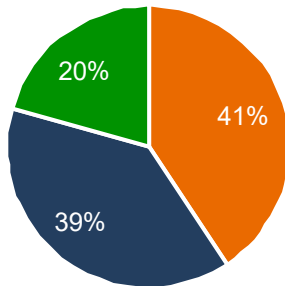
Proven Reserves

February 8, 2018 vs December 31, 2018

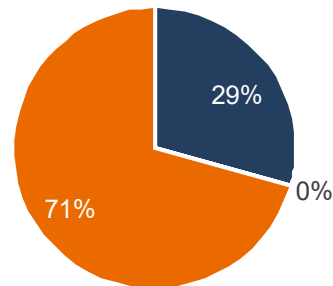
February 8, 2018

Reserves

Total Reserves = 176 MMBOE



Oil Gas NGL

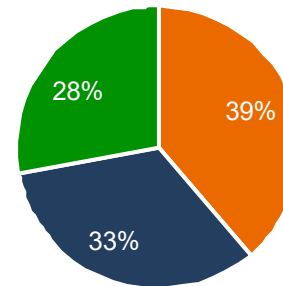


PDP PDNP PUD

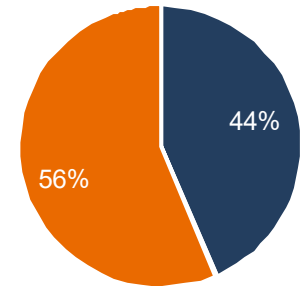
December 31, 2018

Reserves

Total Reserves = 158 MMBOE



Oil Gas NGL



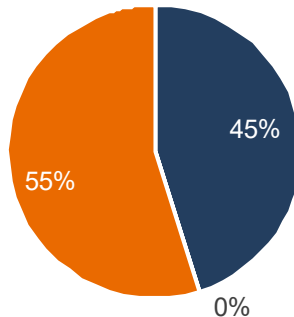
PDP PDNP PUD

Growth in PDP as a %
of Proven Reserves



PV-10

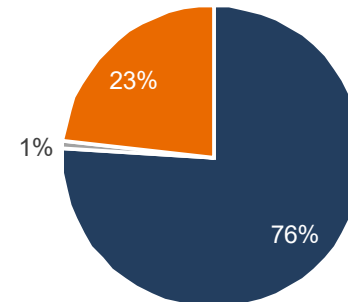
PV-10 = \$1,180mm



PDP PDNP PUD

PV-10

PV-10 = \$1,060mm



PDP PDNP PUD

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Value Overview – Bank Pricing (Upstream Only)

Base Pricing & Sensitivity Pricing¹ | \$ in Millions

	PV-9 (\$MM) as of 12/31/18			
	Base Pricing		Sensitivity Pricing	
	SEC D&C	\$3.2MM D&C	SEC D&C	\$3.2MM D&C
PDP	\$ 530	\$ 530	\$ 321	\$ 321
PDNP	7	7	5	5
PUD	14	81	3	5
Total Proved	\$ 550	\$ 618	\$ 329	\$ 331
Hedges (as of 02/08/19)	18	18	57	57

	PV-9 (\$MM) as of 6/30/19			
	Base Pricing		Sensitivity Pricing	
	SEC D&C	\$3.2MM D&C	SEC D&C	\$3.2MM D&C
PDP	\$ 434	\$ 434	\$ 253	\$ 253
PDNP	5	5	4	4
PUD	14	81	3	5
Total Proved	\$ 452	\$ 520	\$ 259	\$ 261
Hedges (as of 06/30/19)	15	15	41	41

¹ Pricing per Wells Fargo Bank Pricing Policy provided on 02/08/19 (effective 11/27/18 through 02/28/19).

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Summary Conclusions

Important learnings from well results to date:

- Previous pattern wells were developed at too tight of a density; Optimal spacing for the acreage is estimated at 4-5 wells per section
- More expensive advanced completion methodologies and artificial lift technologies have not shown material improvements in performance
- Cost structure for the business is outsized relative to business needs

New initiatives in place:

- 2019 drilling program is designed to test optimal spacing with completion of 16 DUCs and running a 2 rig going to 3 rig program
- Reverting to generation 2 completion methodology and gas lift in addition to renegotiating existing service contracts
- Initial reduction-in-force completed; ongoing review of overhead continuing to match G&A with scale of business in 2019
- 2019 program focused on development of highest return wells (e.g. offset existing infrastructure) while validating revised density and completion design

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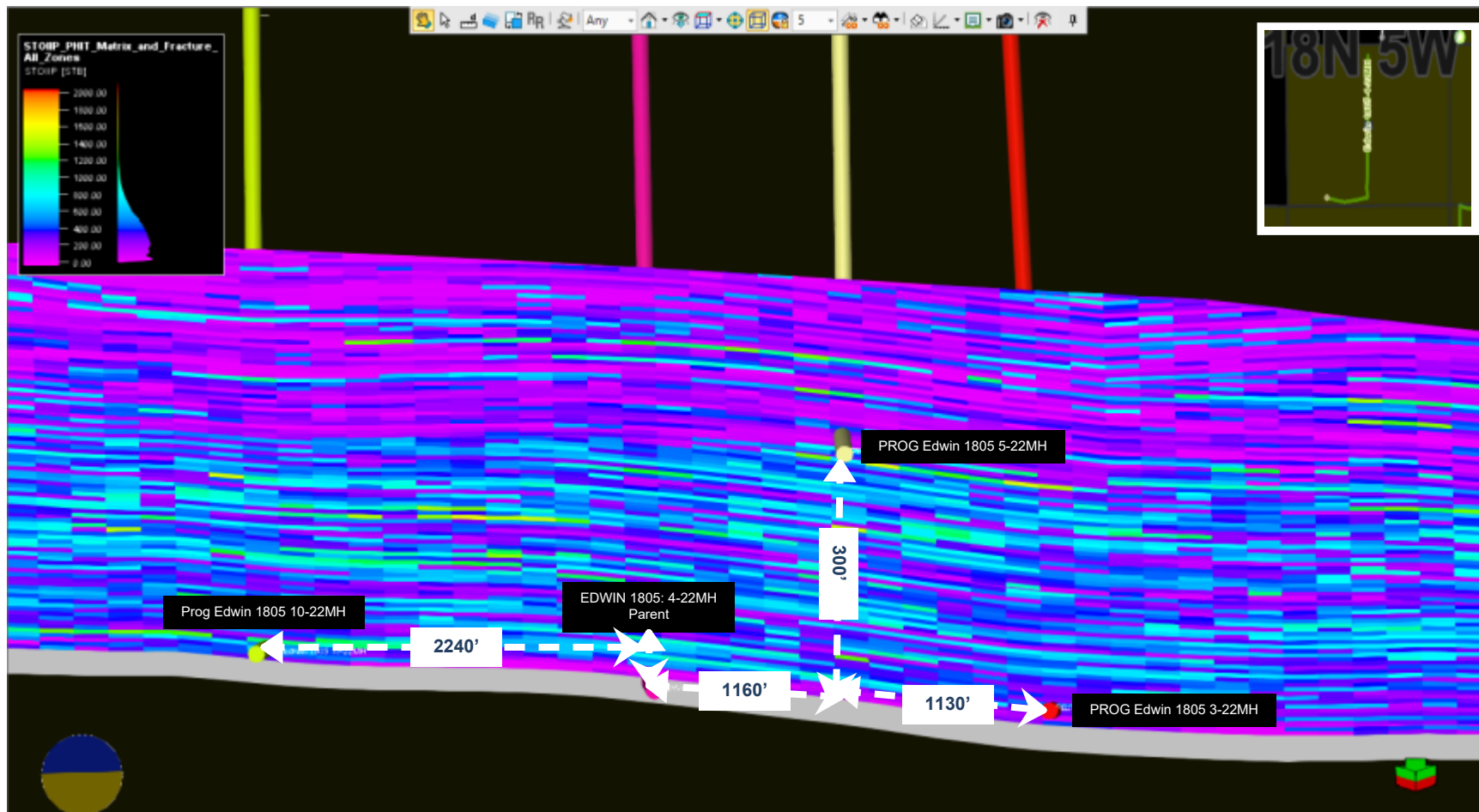
Appendix





Technical Review – New Pattern Example

Edwin 1805



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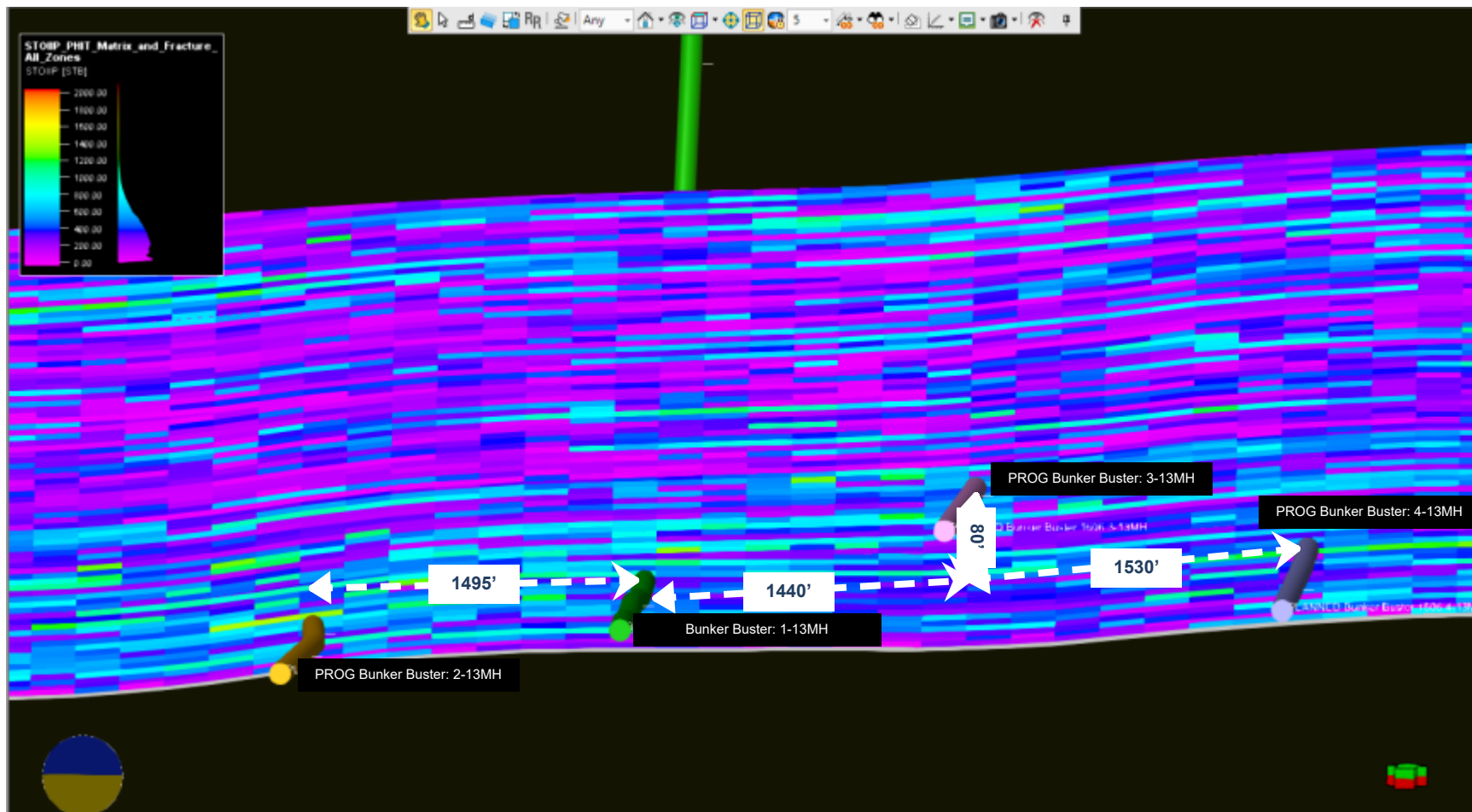
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Technical Review – New Pattern Example

Bunker Buster



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